

REMARKS:

In response to the Final Office Action mailed April 7, 2004, the Applicants filed an Amendment on August 9, 2004 requesting for reconsideration and withdrawal of the finality of the same. An Advisory Action was mailed on September 7, 2004 stating that the request for reconsideration has been considered but does not place the application in condition for allowance.

Claims 12, 15 and 18 have been amended. Claims 1-10, 13 and 16 stand cancelled. New claim 19 has been added. Thus, claims 11, 12, 14, 15, 17, 18 and 19 are pending and under consideration. No new matter has been added. The rejections are traversed below.

REJECTION UNDER 35 U.S.C. §102(e):

In the outstanding Office Action, claims 11, 12, 14, 15, 17 and 18 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,108,775 ('775).

As recited in each of the independent claims 12, 15 and 18, the branch prediction of the present invention includes "*initializing* branch prediction information" where the initialization includes "fixedly performing initialization according to a branch destination of the branch instruction, without depending on a particular program". This enables the present invention to prevent degradation in prediction performance that would otherwise occur when a process switch occurs and a corresponding branch prediction needs to be executed.

In the Advisory Action mailed September 7, 2004 at page 2, the Examiner asserts that the definition of "initialize" can simply be "to set a starting position or value" and the '775 reloading and updating of a pattern history table at column 8, lines 56-59 teaches initializing branch prediction data on a process switch so that the correct branch prediction data is available for the corresponding process by setting the starting position of the current pattern history table for the recently switched-to process.

The Applicants respectfully point out that the definition of "initialize" is "to set to a starting position, value, or configuration" (see, Merriam-Webster Online Dictionary at www.m-w.com). Accordingly, in '775 system, the appropriate one of pattern history tables that is to be used in generating a branch prediction for a particular address is selected or updated according to *the type* of program in which the branching is contained (see, column 8, lines 56-59 of '775). This is different than the present invention that "initializes" branch prediction information upon detecting a process switch. The '775 system that changes one pattern history table to another based on the type of the program does not teach or suggest "initializing branch prediction information" as

recited in each of the independent claims 12, 15 and 18 of the present invention.

It is respectfully asserted that independent claims 12, 15 and 18 are patentably distinguishable over '775.

For at least the above-mentioned reasons, claims depending from independent claims 12, 15 and 18 are patentably distinguishable over '775.

NEW CLAIM:

New claim 19 has been added to emphasize that the present invention includes, "detecting whether a process is switched" and "setting the branch prediction to a predetermined branch prediction information upon detecting that the process is switched" where "the initializing including fixedly performing initialization according to a branch destination of the branch instruction without depending on a particular process". This allows the present invention to avoid preparation of a number of prediction information tables to correspond to a number of programs, requiring a large circuit to be configured. In addition, it enables the present invention to prevent degradation in prediction performance caused when a process switch occurs and a corresponding branch prediction needs to be executed.

Thus, new claim 19 is patentably distinguishable over '775.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

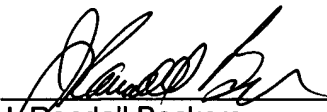
If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: 10/1/4

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